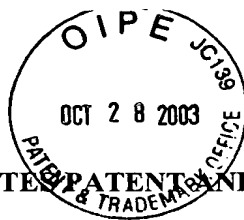


Docket No. 241072US2SRD/hc



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Naoki SHUTOH, et al.

SERIAL NO: 10/629,624

GAU:

FILED: July 30, 2003

EXAMINER:

FOR: THERMOELECTRIC MATERIAL AND THERMOELECTRIC ELEMENT

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

**REFERENCES**

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**RELATED CASES**

- ☒ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**CERTIFICATION**

- ☐ Each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

**DEPOSIT ACCOUNT**

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

  
\_\_\_\_\_  
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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**STATEMENT OF RELEVANCY**

**Reference AO (JP 2001-189495) on Form 1449:**

This reference relates the crystal structure is similar to our invention.

**Reference AW on Form 1449:**

This reference relates to doping ZrNiSn-based thermoelectric materials. But there is no description of (Zr, Hf, Ti) NiSn compound that we invent.

**Reference AX on Form 1449:**

This reference relates to p-type half-Heusler materials. But there is no description of MNiSb compound that we invent.

Form PTO 1449  
(Modified)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.

241072US2SRD

SERIAL NO.

10/629,624

## LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Naoki SHUTOH, et al.

FILING DATE

July 30, 2003

GROUP

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AO	2001-189495	07/10/2001	JAPAN		X
	AP					
	AQ					
	AR					
	AS					
	AT					
	AU					
	AV					

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	H. HOHL, et al., J. Phys.: Condens., matter 11, pages 1697-1709, "EFFICIENT DOPANTS FOR ZrNiSn-BASED THERMOELECTRIC MATERIALS", 1999
	AX	K. MASTRONARDI, et al., Applied Physics Letters, vol. 74, no. 10, pages 1415-1417, "ANTIMONIDES WITH THE HALF-HEUSLER STRUCTURE: NEW THERMOELECTRIC MATERIALS", March 8, 1999
	AY	
	AZ	

☐ Additional References sheet(s) attached

Examiner

Date Considered

\*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



**LIST OF RELATED CASES**

<u>Docket Number</u>	<u>Serial or Patent Number</u>	<u>Filing or Issue Date</u>	<u>Inventor/ Applicant</u>
221292US2 SRD	10/105,341	03/26/02	SHUTOH et al.
241072US2 SRD*	10/629,624	07/30/03	SHUTOH et al.